

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Cancelled).

2. (Cancelled).

3. (Cancelled).

4. (Cancelled).

5. (Cancelled).

6. (Cancelled).

7. (Cancelled).

8. (Cancelled).

9. (Cancelled).

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Cancelled).

16. (Cancelled).

17. (Cancelled).

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Cancelled).

25. (Cancelled).

26. (Cancelled).

27. (Cancelled).

28. (Cancelled).

29. (Cancelled).

30. (Cancelled).

31. (Currently Amended) A time sensitive quality of service management system comprising:

a communication port for communicating information;

a switching circuit for providing an output communication path to said

communication port and performing unscheduled cut through routing of a communication

path probe, wherein said probe is discarded if said unscheduled cut through routing ~~is not performed directly~~ cannot be performed within a time constraint associated with said probe, said switching circuit coupled to said communication port;

a processor for directing said switching circuit to perform unscheduled cut through routing of a said communication path probe and a communication path probe update, including discarding said communication path probe and associated information if said unscheduled cut through routing of said probe ~~is not performed directly~~ cannot be performed within said time constraint, said processor coupled to said switching circuit; and

a memory for storing information associated with the control of said switching circuit by said processor, said memory coupled to said processor.

32. (Original) A time sensitive quality of service management system of Claim 31 wherein said processor analyzes incoming information and determines if the incoming information has time sensitive characteristics.

33. (Previously Presented) A time sensitive quality of service management system of Claim 32 wherein said processor directs said time sensitive quality of service management system to drop said incoming information with time sensitive characteristics if said switching circuit can not output said information within specified timing constraints according to said time sensitive characteristics.

34. (Original) A time sensitive quality of service management system of Claim 32 wherein said processor directs said time sensitive quality of service management system to drop said incoming information with time sensitive characteristics if said switching circuit is busy performing other switching operations.

35. (Currently Amended) A time sensitive quality of service management system of Claim 32 wherein said processor directs said ~~switch~~ switching circuit to add identification information to said communication path probe and forward said communication path probe by cut-through routing upon receipt and analysis of destination information in said communication probe.

36. (Currently Amended) A time sensitive quality of service management system of Claim 32 wherein said processor directs said ~~switch~~ switching circuit to forward said communication path probe update upon receipt and analysis of source information in said communication probe update.

37. (Original) A time sensitive quality of service management system of Claim 32 wherein said communication path probe update includes information utilized to establish a communication path from a source to a destination.

38. (Previously Presented) A time sensitive quality of service management system of Claim 32 wherein said communication path probe is broadcast to communicatively coupled neighboring intermediate network devices.

39. (Original) A time sensitive quality of service management system of Claim 32 wherein the information is considered urgent if it is addressed to a port associated with a time sensitive device.

40. (Cancelled).

41. (Cancelled).

42. (Cancelled).

43. (Cancelled).

44. (Cancelled).

45. (Cancelled).

46. (Cancelled).

47. (Cancelled).

48. (Cancelled).

49. (Cancelled).

50. (Cancelled).

51. (Cancelled).

52. (Cancelled).

53. (Cancelled).

54. (Cancelled).

55. (Currently Amended)      A network management system comprising:

- a communication port for communicating information;
- a switching circuit for providing an output communication path to said communication port and performing unscheduled pre-emptive cut through routing of information, wherein said information is discarded if said unscheduled pre-emptive cut through routing is not performed directly cannot be performed within a timing constraint associated with said information, said switching circuit coupled to said communication port;
- a processor for directing said switching circuit to perform unscheduled pre-emptive cut through routing of a communication path probe utilized to establish a communication path for communicating non-time sensitive information, wherein said

non-time sensitive information is dropped if said unscheduled pre-emptive cut through routing is not performed directly cannot be performed within a timing constraint associated with said non-time sensitive information, said processor coupled to said switching circuit; and

a memory for storing information associated with the control of said switching circuit by said processor, said memory coupled to said processor.

56. (Previously Presented) The network management system of Claim 55 wherein said processor directs said switching circuit in the performance of a time sensitive quality of service management method comprising:

receiving information by an intermediate network device;

determining transmission timing constraints of said intermediate network device;

sending the information to downstream devices by the intermediate network device via unscheduled pre-emptive cut through routing only, if the intermediate device is available for sending information to downstream devices within specified timing constraints;

analyzing the timing constraints of the information by the intermediate network device; and

dropping the information if the intermediate device is not available for sending to downstream devices within specified timing constraints directly via said unscheduled cut through routing.



57. (Previously Presented) The network management system of Claim 55 wherein dropped information is resent from an originating device.

58. (Currently Amended) The network management system of Claim 55 wherein a packet of information is switched to ~~the~~ down stream channels as soon ~~the~~ [a] header indicating the timing constraints of the information is received and analyzed.

59. (Previously Presented) The network management system of Claim 55 wherein the information is considered urgent if it is addressed to a port associated with a real time device.